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Distracted Driving among Teens: How Can We Educate and Protect Our Youth?

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Abstract

Texting while driving (TWD) is a growing problem among drivers in the United States. This project utilizes protection motivation theory and general deterrence theory to identify key components of teenager TWD law compliance. We conduct an extensive review of the literature, develop a TWD law compliance survey, administer the survey to teenage drivers, and identify the impact of personality traits on TWD law compliance. Implications for research and practice are discussed.

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1. Introduction

Texting while driving (TWD) is a growing problem among teenage drivers. In a study published in *Pediatrics* in 2013, 44.5% of the teenage survey respondents admitted to texting while driving at least once during the past month. In comparison to their peers who do not text and drive, these same teenagers were also more likely to engage in other risky driving behaviors such as drinking and driving, not using a seat belt, and riding with a driver who has been drinking [1].

Researchers at the Cohen Children's Medical Center in New Hyde Park, NY have found that the number of teenager deaths caused by texting and driving has now exceeded the number of teenager deaths resulting from drunk driving.

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For instance, it is estimated that more than 3,000 teenagers die and 300,000 are injured in TWD accidents while only 2,700 teenagers die and 282,000 suffer injuries related to drunk driving incidents. While many states have enacted laws to crack down on TWD, they do not appear to be very effective in discouraging the behaviors, especially for teenagers [2].

2. Conceptual Development

This project identifies key components of teenager TWD law compliance by conducting an extensive review of the literature, developing a TWD law compliance survey, administering the survey to teenagers, and identifying TWD law compliance profiles of teenagers. Such profiles can be used to create unique TWD law compliance training protocols designed to meet the unique needs of specific teenager profiles. Specifically, we will empirically establish the role that personality characteristics, fear appeals, and sanctions play in the formation of safe driving behavioral intentions, such as electing not to engage in TWD, in teenagers. These differences can be used to develop customized driver training protocols that will be more effective in discouraging teenage TWD.

In this study, we will investigate the role of the “Big Five” personality types (i.e., neuroticism, extraversion, openness, agreeableness, and conscientiousness) as factors which may be associated with the motivation to adopt safety behaviors and to comply with TWD regulations [3]. People scoring high on the openness scale have active imaginations and exercise independence of judgment. Conscientious people tend to be strong-willed and achievement-oriented. People scoring high on the extraversion scale are sociable, assertive, and collaborative. People scoring high on the agreeableness scale are accepting; they value and respect other people’s beliefs. Neuroticism encapsulates various negative feelings, including emotional instability, embarrassment, pessimism, and low self-esteem [3].

While previous investigations have established linkages between personality traits and other safety behaviors (e.g., [4]) and others have established that the traits of high extroversion, high openness, and low conscientiousness may be closely linked to youth risk-taking behavior [5], there is still a need for more definitive statistical evidence related to teenage TWD behaviors. In addition, other factors in the Big Five [6], along with other individual differences, such as the rationality of individual decision making, and cultural factors may prove to be instrumental in establishing a profile that is associated with the motivation to comply with TWD laws. In this study, we explore the role of personality traits, deterrence theory and protection motivation theory on texting while driving law compliance among teenage drivers.

Deterrence theory suggests that individuals will be discouraged from performing undesirable behavior (e.g., crime, computer abuse, policy violation) if they perceive that there will be punishments or sanctions which are certain and severe [7,8]. The effective application of deterrence controls presumes that individuals consider the benefits of a policy violation and make a rational choice to engage in noncompliant or criminal behavior. Therefore, awareness and prevention programs can inform drivers about sanctions, but individuals will cognitively process that information in unique ways.

In addition to general deterrence theory, fear appeals may also impact TWD compliance. Protection motivation theory (PMT) suggests that when individuals perceive that they are more susceptible to threats and when the threats are more severe, they are more likely to adopt a recommended response to the threat, as long as the individual perceives a sufficient level of self-efficacy, perceived efficacy in the recommended response, and a limited impact of costs associated with the response [9, 10, 11]. The proposed research model is presented in figure 1.

3. Methodology

An extensive literature review on the teen texting while driving law compliance research topic has been conducted. The research model has been developed and survey items have been identified. We conducted a pilot study by administering a survey to 100 teenage drivers in North Carolina. The results and implications will be presented at the conference.

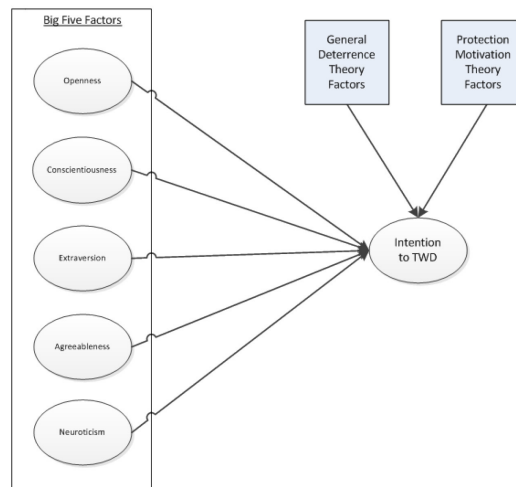


Figure 1. Proposed Research Model

4. Anticipated Findings

We expect to find variance in TWD compliance for different personality types. The results will impact the development of distracted driving promotional material and deterrence campaigns.

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